

## NORTH PACIFIC OCEAN, NOVEMBER, 1932

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*Atmospheric pressure.*—The center of the Aleutian LOW during November, 1932, lay over the northwestern part of the Gulf of Alaska. Here the average pressure was below the normal, although in the adjacent part of the Bering Sea it was considerably above.

The crest of the oceanic high-pressure region lay off the California coast, and a narrow anticyclonic belt extended thence across the ocean in southern waters of the temperate zone, widening toward the Asiatic coast, where the continental HIGHS extended seaward over Japan and the neighboring islands to the southward.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean, November, 1932, at selected stations

Stations	Average pressure	Departure from normal	High-est	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Point Barrow.....	30.18	+0.19	30.68	10, 11	29.68	28
Dutch Harbor.....	29.71	+ .12	30.32	1	28.66	30
St. Paul.....	29.81	+ .25	30.14	26, 28	28.90	30
Kodiak.....	29.61	-.05	30.24	9	28.50	24
Juneau.....	29.67	-.09	30.47	10	28.82	5
Tatoosh Island.....	29.96	-.01	30.48	10	29.17	1
San Francisco.....	30.11	+ .02	30.33	5	29.88	26
Mazatlan.....	29.92	-.04	30.00	20, 21, 27	29.82	9
Honolulu.....	30.01	-.01	30.16	29	29.82	18
Midway Island.....	30.00	-.08	30.16	18	29.54	14
Guam.....	29.84	-.02	29.90	17, 30	29.74	8
Manila.....	29.81	-.08	29.96	17	29.52	10
Naha.....	30.04	+ .06	30.28	18	29.58	12
Chichishima.....	30.02	+ .04	30.26	18	29.72	14
Nemuro.....	29.97	-----	30.28	3, 5	29.48	15

NOTE.—Data based on 1 daily observation only, except those for Juneau, Tatoosh Island, San Francisco, and Honolulu, which are based on 2 observations. Departures are computed from best available normals related to time of observation.

*Cyclones and gales.*—During November a succession of cyclones, many of them accompanied by snow, appeared on the northern part of the North Pacific, but a concentration of cyclonic activity occurred in the Gulf of Alaska. In consequence of the barometrically depressed condition in northeastern waters and the frequent extension of low pressure into middle latitudes, fresh to whole gales were experienced on several days to the eastward of 170° W. by northern-route vessels. High winds were reported off

the Washington and Oregon coasts on three or four days during the existence of these far-reaching lows. The heaviest winds of the month thus far reported in connection with extratropical cyclones were those of the 3d–4th—maximum force 11—near latitude 40° N., longitude 134° W., and that of the 10th—force 12—near 51° N., 163° W.

In east longitudes less than the usual amount of stormy weather for the month, associated with higher-latitude cyclones, seems to have occurred. The region of most frequent storminess lay southeast of the Kuril Islands. In midocean an extensive depression occurred near the middle of November. It reached far southward and on the 14th caused a barometric fall to 29.54 inches at Midway Island. On this day scattered gales of force 8–9 were reported from an enormous area between latitudes 30° and 45° N., longitudes 165° E. and 165° W.

*Typhoon of November 7–16.*—About November 7 a depression appeared east of the Philippine Islands. From the 8th to 11th it affected the central and northern part of the archipelago as it slowly moved northward. The lowest pressure at Manila occurred on the 10th and at Naha on the 12th. On the 13th the typhoon lay south of Kiushu Island, Japan, developing rapidly. On the 14th and 15th it went up the east Japanese coast, causing full-storm to hurricane velocities over the near-by sea, and on the 16th, south of the Kurils, was working rapidly toward the Aleutians. Among the vessels involved in this storm the American tankship *California* perhaps bore the fullest brunt of it. She passed through the typhoon center in 32° N., 137° E., on the afternoon of the 14th, lowest barometer 28.31 inches. The wind there dropped from a southeast hurricane to variable puffs, force 2. During the relative calm, numbers of ducks and land birds were observed. On the other side of the center hurricane winds from the northwest were estimated to have a velocity of 125 miles an hour.

*Tehuantepecers.*—Over and near the Gulf of Tehuantepec norther gales occurred on several days, as follows: Of force 7 on the 6th and 25th; of force 8 on the 19th and 20th; and of force 9 on the 13th, 29th, and 30th.

*Fog.*—Very little fog was observed far at sea, but off the central California coast it was reported on 10 days, diminishing northward to the Columbia River and southward to Cape San Lucas.